



**Hand-Held Scarifiers**



**Needleguns**



**Walk-Behind Scarifiers**



**Impact Tools**



**Sanders**



**Specialty Tools**



**Industrial Vacuums**



# Model 50 Needlegun *and* Tile Stripper *Pneumatic*



### *Configurations*

Part	Description
180.028	Needlegun, 5', Model 50, with flat style dust collector
180.0281	Needlegun, 5', Model 50, without dust collector
180.029	Tile Stripper, 5', standard
180.030	Tile Stripper, 5', ultra light
180.010	Tile Stripper, 2'

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## Introduction

The Desco Model 50 is a Tile Stripper that converts to a Needlegun. For convenience, the tool is sold pre-configured as either a tile stripper or an extended reach needlegun.

The Model 50 needle gun is a back and time saver. The long reach gets you off your knees and ladder. An added bonus of the extended reach when working around hazardous materials or radiation is to keep a worker away from the danger source.

## Main Applications

- De-slugging welds
- Shot-peen profile (Capable of achieving SSPC SP-11)
- Stripping paint
- Cleaning castings
- Cleaning angles & corners
- Removing rust & corrosion
- Removing non-skid
- Removing tile

## Technical Specifications

Operating air pressure	90 PSI
Average air consumption	5 CFM
Strokes per minute	2,200 SPM
Stroke length	1.54"
Needle Size (Number)	3mm x 7" (28)
Overall length	5', 2'
Weight	11.5 – 14.1 lbs
Air inlet	1/4" NPT

## Cautions for Use



PLEASE READ AND FOLLOW ALL WARNINGS



### ***Read Operating Instructions***

Always become familiar with all the instructions and warnings before operating any pneumatic tool.

### ***Always Wear Approved Eye Protection***



Impact resistant eye protection should meet or exceed the standards as set forth in the United States ANSI Z87.1, Occupational and Educational Eye and Face Protection. Look for the marking Z87.1 on your eye protection to insure that it is an approved style. For further information, ANSI Z87.1, Occupational and Educational Eye and Face Protection, is available from the American National Standards Institute, Inc., 11 West 42nd Street, New York, NY 10036.

### ***Hearing Protection is Recommended***



Hearing protection should be used when the noise level exposure equals or exceeds an 8 hour time-weighted average sound level of 85dBA. Process noise, reflective surfaces, other tools being operated nearby, all add to the noise level present in your work area. If you are unable to determine your noise level exposure, we recommend the use of hearing protection.

### ***Avoid Prolonged Exposure to Vibration***



Pneumatic tools can vibrate during use. Prolonged exposure to vibration or very repetitive hand and arm movements, can cause injury. Stop using any tool if discomfort, tingling feeling or pain occurs. You should consult your physician before resuming use of the tool.

### ***90 PSI Maximum***



This tool is designed to operate at an air pressure of 90 pounds per square inch gauge pressure (90 PSI) maximum, at the tool. Use of higher air pressure can, and may cause injury. Also, the use of higher air pressure places the internal components under loads and stresses they were not designed for, causing premature tool failure. The air supply should be clean and dry, preferably lubricated. For best results, drain the moisture from your compressor daily.

### ***Idle Running***

Idle operation will shorten the life of the tool and needles and should be avoided.

## Requirements

The Desco Model 50 Needle Scaler and Tile stripper is designed to operate with 90 PSI. Lower pressure (below 90 PSI) will reduce performance of the tool while higher air pressure (over 90 PSI) raises the performance of the tool beyond its rated capacity and could cause serious damage to tool and operator.

Always use clean dry air. Excessive moisture and dirt will greatly reduce the life of any air tool. We recommend the installation of an in-line filter-regulator-lubricator as close to the tool as possible.

## Configuration

### *Configuration Options*

The Desco Model 50 is a Tile Stripper that converts to a Needlegun. For convenience, the tool is sold pre-configured as either a tile stripper or an extended reach needlegun.

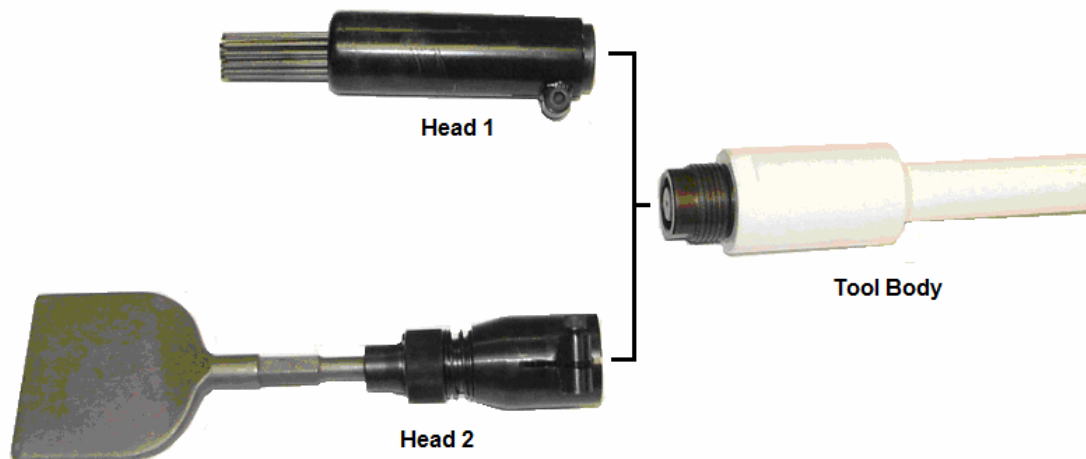
To change between configurations, simply:

Remove head 1:

- loosen set screw with Allen wrench,
- unscrew head assembly

Replace with head 2:

- Screw in head assembly
- Tighten set screw with Allen wrench



**Note:** The optional needlegun dust collector is held on with a pinch clamp. Upon loosening the locking Allen bolt, the pinch clamp may remain too tight to release the dust collector. If this occurs, reverse the set screw to spread the pinch clamp.

## ***Tile Stripper Configuration***

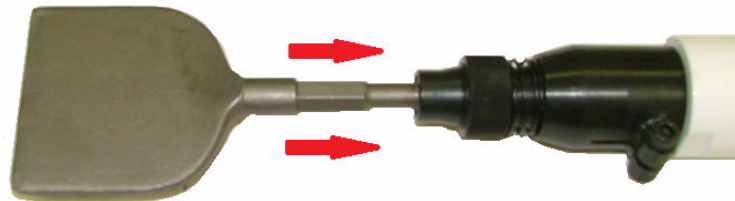
- 1) To configure as a tile stripper, attach chisel holder by screwing into the tool body. Note: set screw must be loose prior to attaching chisel holder.



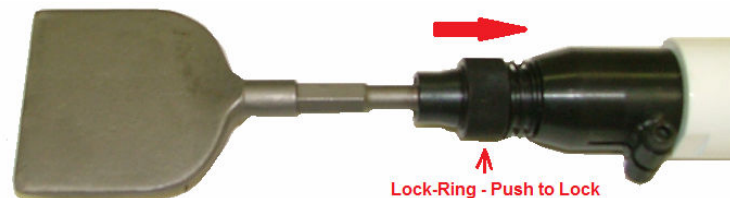
- 2) Secure chisel holder by tightening set screw with Allen wrench.



- 3) Insert chisel into chisel holder



- 4) Secure chisel by pulling back on lock-ring while gently pushing chisel into chisel holder.



- 5) Optional 8" (180.026) and 12" (180.027) chisel blades may be used with a yoke adapter (180.033).



## ***Needle Gun Configuration, without Dust Collection***

- 1) To configure as a needlegun, attach needle assembly by screwing into the tool body. Note: set screw must be loose prior to attaching needle assembly.

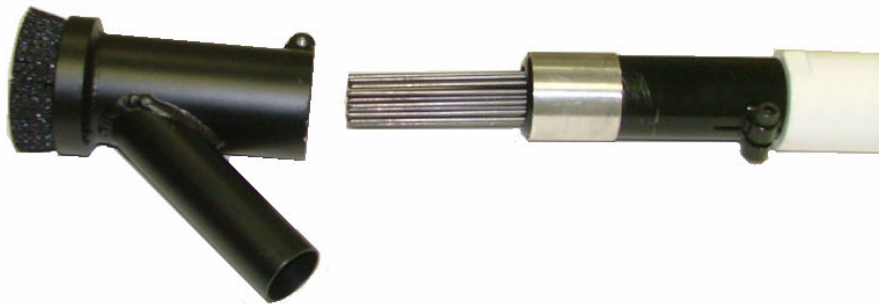


- 2) Secure needle assembly by tightening set screw with Allen wrench.

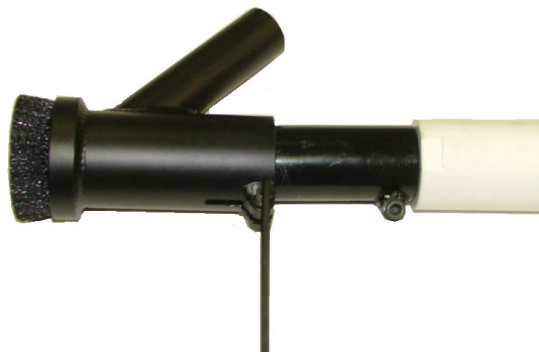


## ***Needle Gun Configuration, with Dust Collection***

- 1) When configuring for use with a dust collector, follow steps above to attach needle assembly. Then remove needle-guide piece and install aluminum spacer.



- 2) Now slide dust collector over spacer and secure by tightening set screw with Allen wrench.



## Installing Replacement Needles

- 1) Remove needlegun assembly from tool body by loosening set screw with Allen wrench.



- 2) Remove needlegun assembly by unscrewing from the tool body.



- 3) Remove plunger from needlegun assembly.



- 4) Remove needle holder and needles from needle gun assembly.







- 5) Remove and replace needles. When complete, all needles should be the same length. As a result, you generally need to replace all needles, not just the broken needles because the old, worn needles will be shorter than the new needles and will have experienced metal fatigue.



- 6) Reassembly – Reassemble by reversing the procedure. Prior to reassembly, be sure to clean and lubricate the following parts with a few drops of light machine oil. See [Lubrication and Maintenance](#) for more information.
- a) Needle holder,
  - b) Plunger,
  - c) Needlegun assembly body (cylinder where needle holder & plunger fit).

 **Caution** - Never operate scaler without the needles installed and pressed against the work surface. Doing so may result in personal injury or damage to the tool.

 **Warning** - This tool may produce flying objects. Always wear eye protection during operation.

## Operation

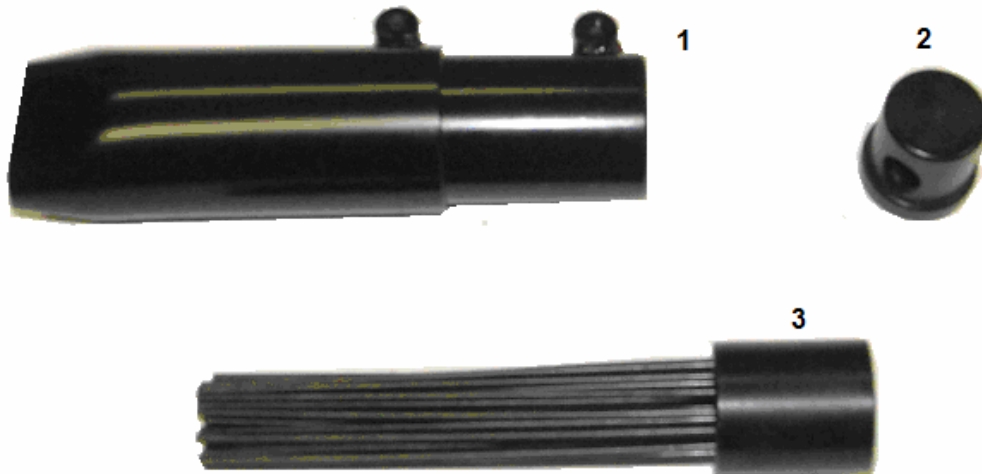
Scaling efficiency depends on the force applied to the scaler. For efficient material removal on most applications, applying a light hold down pressure will give the best results. Do not bear down. More force does not equal more productivity.

Lubricate tool regularly and properly. Always wear safety equipment during operation. Check condition of tool and needles before each use. Avoid free air operation of this tool, always apply tool to work before pressing throttle. This tool is designed to use (28) (3mm) X 7" needles. Please refer to parts list for part numbers.

## Lubrication and Maintenance

Proper maintenance service at regular intervals is essential to tool performance and long life.

1. Every 8 hours of operation, the needlegun should be disassembled, cleaned and lubricated with pneumatic tool oil. To do so:
  - a) remove needle assembly from needlegun body,
  - b) remove plunger (2) from needlegun cylinder (1),
  - c) remove needle holder (3) from needlegun cylinder (1),
  - d) clean the interior of needlegun cylinder (1) with clean cloth,
  - e) clean plunger (2) and needle holder (3) with clean cloth,
  - f) put a few drops of oil on plunger (2) and needle holder (3),
  - g) reassemble needle assembly and,
  - h) reattach needle assembly to needlegun body.



2. An automatic in-line filter-lubricator is recommended to increase tool life and keeps the tool operating properly. The in-line lubricator should be regularly checked and filled with pneumatic tool oil.

**Note:** Using an in-line lubricator *does not* exempt you from performing lubrication maintenance as described in step 1 above.

## Storage

Avoid storing the tool in a location subject to high humidity. If the tool is left as it is used, residual moisture on the inside can cause rusting. Before storing, and after operation, oil the tool at the air inlet with spindle oil and run it for a short time.

## Ordering Service Parts

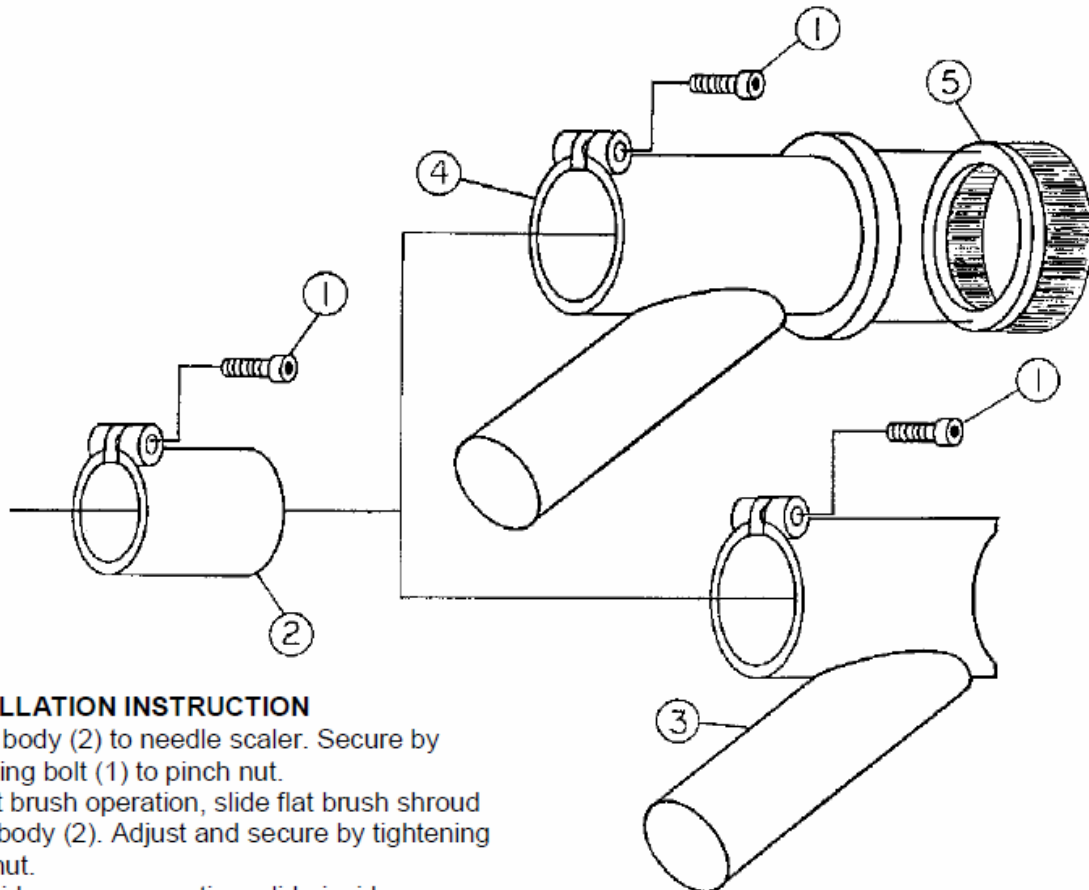
For further operation and handling information, or for replacement of parts and components, contact the sales representative from whom you purchased the tool, or the service division of our company.

## Troubleshooting

Symptom	Probable Cause
Tool Jammed	When the tool jams, the most likely cause is lack of lubrication. To correct disassemble, clean, inspect, lubricate, and reassemble. If the problem persists, please contact your Desco representative.
Needles breaking	Short needle life is often caused by the tool operator bearing down on the tool too hard. Use light hold down pressure only and let the tool do the work. Be sure to dis-assemble and replace broken needles before proceeding.
Slow performance	Slow performance is usually caused by insufficient air or lack of lubrication. For insufficient air, <ul style="list-style-type: none"><li>• first check that your air source is putting out the required 90 psi at 5 cfm</li><li>• Next check the air supply hose. A ½ inch diameter, 50 foot long hose is recommended. Hoses less than 1/2 inch will restrict air flow. Hose length affects air pressure; the longer the hose, the greater the pressure loss.</li><li>• Finally, if using a Lubricator, Filter, Evaporator, check to see if the filter is clogged.</li></ul> For lack of lubrication, check to see when the tool was last lubricated. Perform maintenance as necessary.

## Schematics

### *Model 50 Needlegun Dust Collector*



#### **INSTALLATION INSTRUCTION**

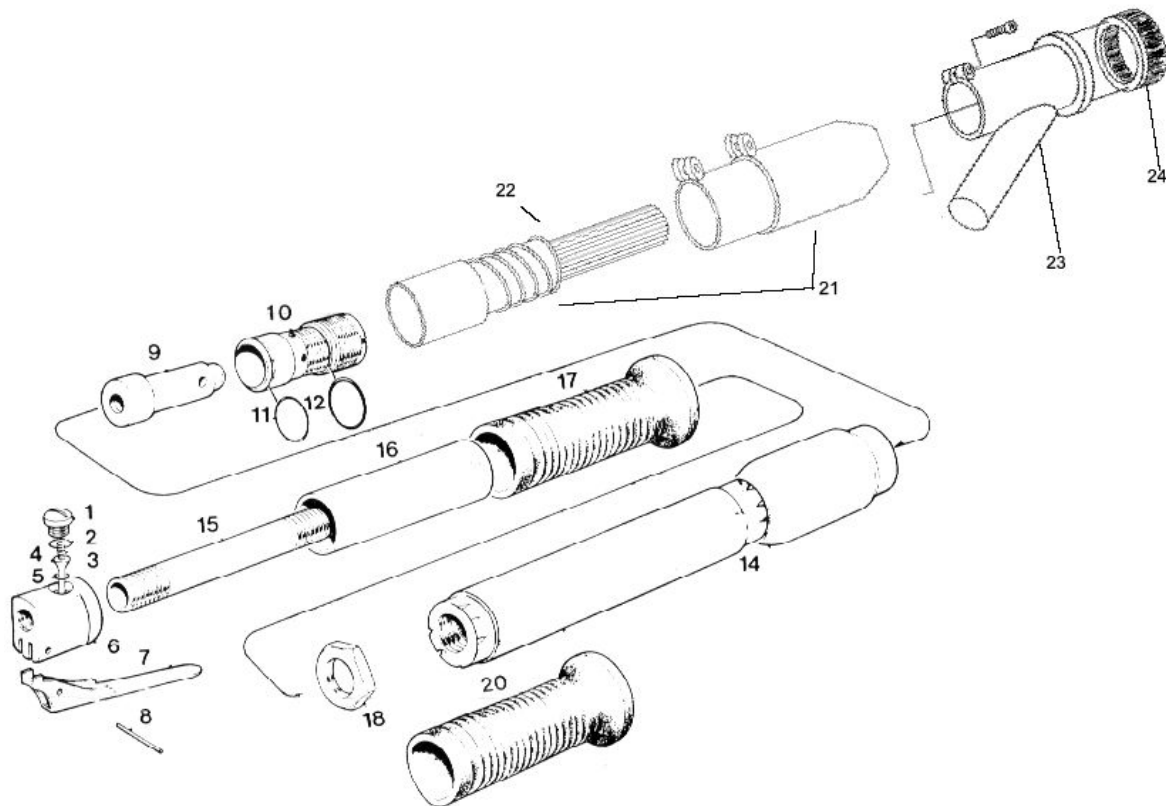
Attach body (2) to needle scaler. Secure by tightening bolt (1) to pinch nut.

For flat brush operation, slide flat brush shroud (4) on body (2). Adjust and secure by tightening pinch nut.

For inside corner operation, slide inside corner shroud (3) on body (2). Adjust and secure by tightening pinch nut.

Ref	Part	Description
1	750.006	Bolt
2	130.007	Bolt DCOA
3	130.060	Shroud, Inside Corner DCOA
4	130.059	Shroud, Flat Brush DCOA
5	500.060	Brush

## Model 50 Needlegun & Tile Stripper



Ref	Part	Description	Ref	Part	Description
1	180.090	Valve Cap	12	180.106	"O" Ring
2	180.091	"O" Ring-Valve Cap	14	180.094	Cover Assembly (w/ 18 Locknut)
3	180.099	Valve Spring	15	180.092	Center Tube
4	180.098	Valve Stem	16	180.104	Handle Tube
5	180.100	"O" Ring-Valve Seat	17	180.095	Rubber Handle Grip
6	180.088	Valve Body	20	180.103	Rubber Handle Grip
7	180.097	Throttle Lever	21	180.006	Needle Assembly
8	180.102	Roll Pin	22	130.024	7" x 3mm Needle
9	180.116	Piston	23	180.017	Dust Collector for Tile Stripper
10	180.107	Cylinder	24	500.060	Brush for Dust Collector
11	180.105	"O" Ring			